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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,562	05/21/2000	Xavier S. Haurie	A0312/7400/MXS	1261

7590 09/13/2002

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EXAMINER

PHAN, TRONG Q

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 09/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,562

Applicant(s)

FERGUSON ET AL.

Examiner

TRONG PHAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 15, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference voltage V_{ref} (line 30, page 13). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-65 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention as recited claims 1-65 are not clearly understood because of the following reasons:

a) it is not understood what number 152 and elements QDAC1 to QDACN in Fig. 4 really are and how they are interconnected with the and the charge sharing

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network since they are not described in the specification;

b) it is not understood what the number 152 in Fig. 5 really is since it is not described in the specification; it is not understood how switch S13 in Fig. 5 is controlled by P1 + P2 since the specification discloses that the P1 signal controls all switches S13-S16 (last line of page 13 and line 1 of page 14);

c) all equations on the right side of Figs. 7A-C, 8A-D and 12A-C, 14A-C, 19A-C, 33A-C and 34A-C are not understood since Vref is not shown in the drawings of the invention and Q(C1), Q(C2), Q(C3) and Q(C4) are not described in the specification;

d) the switching ON/OFF operation of all the switches in each of Figs. 10, 11A-D, 12A-C, 14A-C, 15, 16A-E, 17-18, 19A-C, 20-22, 25, 27, 30, 33A-C and 34A-C is not understood since no switching control signal associated with each of switches is shown the drawings of the invention and is clearly described in the specification;

e) it is not understood what element NC in Figs. 17, 21-22, 25 really is since it is not described in the specification;

f) it is not understood what the four arrows on the right side of scrambler 400 in Fig. 24 really are since they are not described in the specification;

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g) it is not understood what the P3 in Figs. 28A-B really is since the specification discloses in line 5, page 30 that the conductor 454 is provided to supply the phase signal P2:

h) it is not understood what elements SCF, selectable gain, External CAP and Voltage output in Fig. 30 of the present invention really are since they are not described in the specification;

i) it is not understood what elements $P1 + \text{bit}1.P2$, $P1 + \text{bit}2.P2$, $P1 + \text{bit}3.P2$ and $P1 + \text{bit}4.P2$ in Fig. 31 really since they are not described in the specification.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10, 19-20, 23, 26, 33 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10, it is not clear how more analog signals comprise exactly only one signal.

Claim 19, no antecedent basis for "the same value".

Claims 20, 23, 26, 33 and 36, no antecedent basis for "the same charge".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102

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that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-65 are, insofar as understood, rejected under 35 U.S.C. 102(b) as being anticipated by Da Franca et al., 5,008,674.

Da Franca et al., 5,008,674, discloses in Fig. 3 Prior Art a DAC comprising: a switched capacitor network receiving equally-weighted multi-bit digital input signals b_0 to b_{w-1} and having first sub DAC comprising: switches CS_0 , S_{10} and S_{00} and capacitor CP_0 and receiving an associated input bit b_0 , second sub DAC comprising: switches CS_1 , S_{11} and S_{01} and capacitor CP_1 and receiving an associated input bit b_1 , third sub DAC comprising: switches CS_{w-1} , S_{1w-1} and S_{0w-1} and capacitor CP_{w-1} and receiving an associated input bit b_{w-1} ; wherein: when switches CS_0 , CS_1 , CS_{w-1} and S_{10} , S_{11} and S_{1w-1} are closed and switches S_{00} , S_{01} and S_{0w-1} are opened, all capacitors CP_0 , CP_1 and CP_{w-1} are commonly connected to reference voltage V_R , then, switch S_0 is closed, all capacitors CP_0 , CP_1 and CP_{w-1} are commonly connected to common node ND sharing charge with one another and the common node ND being connected to the input of the switched capacitor filter to provide an analog output signal indicative

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Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (703) 308-4870 and email address is trong.phan@uspto.gov



**TRONG PHAN
PRIMARY EXAMINER**

September 10, 2002